

ORIGINAL ARTICLE

**Characteristics of atrial fibrillation patients suffering atrioesophageal fistula after radiofrequency catheter ablation**

[Yun Gi Kim MD](https://onlinelibrary.wiley.com/action/doSearch?ContribAuthorStored=Kim%2C+Yun+Gi)

[Jaemin Shim MD](https://onlinelibrary.wiley.com/action/doSearch?ContribAuthorStored=Shim%2C+Jaemin)

[Dong‐Hyeok Kim MD](https://onlinelibrary.wiley.com/action/doSearch?ContribAuthorStored=Kim%2C+Dong-Hyeok)

[Jong‐Il Choi MD](https://onlinelibrary.wiley.com/action/doSearch?ContribAuthorStored=Choi%2C+Jong-Il)

[Sang‐Weon Park MD](https://onlinelibrary.wiley.com/action/doSearch?ContribAuthorStored=Park%2C+Sang-Weon)

[Hui‐Nam Pak MD](https://onlinelibrary.wiley.com/action/doSearch?ContribAuthorStored=Pak%2C+Hui-Nam)

[Young‐Hoon Kim MD](https://onlinelibrary.wiley.com/action/doSearch?ContribAuthorStored=Kim%2C+Young-Hoon)

First published: 21 June 2018

[**https://doi.org/10.1111/jce.13671**](https://doi.org/10.1111/jce.13671)

Cited by: [2](https://onlinelibrary.wiley.com/doi/pdf/10.1111/jce.13671#citedby-section)

Disclosures: None declared.

Abstract

1 Introduction

Radiofrequency catheter ablation (RFCA) in atrial fibrillation (AF) patients can cause various complications and atrioesophageal (AE) fistula is one of the most catastrophic complications of RFCA.

2 Methods and results

RFCA registries from 3 cardiovascular centers in the Republic of Korea consisted of 5721 patients undergoing 6724 procedures. Before undergoing RFCA, patients underwent either computed tomography or magnetic resonance imaging. We evaluated clinical, anatomical, and procedural characteristics of patients who developed AE fistula after RFCA. A total of 10 patients developed AE fistula after RFCA (0.15% per procedure). All AE fistulas occurred during first‐time RFCA. Eight patients died and mortality rate was 80.0%. No patients had any gastrointestinal symptom at the time of discharge and mean duration time from RFCA to symptom onset was 23.4 days. Six patients (60.0%) had paroxysmal AF. Substrate modification in addition to pulmonary vein isolation was performed in 4 patients (40.0%). Patients with old age, low body weight, and high CHA2DS2‐VASc score were at increased risk of AE fistula. Baseline imaging evaluation revealed that esophagus had closest contact with LA posterior wall near left inferior pulmonary vein rather than left superior pulmonary vein and all documented AE fistulas were located near left inferior pulmonary vein.

3 Conclusion

Posterior wall of LA near left inferior pulmonary vein was the most vulnerable location for AE fistula. Pulmonary vein isolation was the main lesion set associated with AE fistula and old age, low body weight, and high CHA2DS2‐VASc score were significant risk factors for AE fistula